

What is claimed is:

1. A broadband slot antenna, comprising:

a dielectric layer under which a microstrip feedline is  
5 formed;

a ground formed on the dielectric layer and  
electromagnetically coupled with the microstrip antenna  
through a slot; and

a reflection plane placed under the microstrip feedline  
10 in order to prevent board surface waves from being radiated  
and enhance antenna gain.

2. The antenna as recited in claim 1, wherein area of an  
entrance of the slot is the same as that of a bottom of the  
15 slot or area of the entrance of the slot is different from  
that of the bottom of the slot.

3. The antenna as recited in claim 1, wherein the  
reflection plane is a metal resonator.

20 4. A slot array antenna, comprising broadband slot  
antennas,

wherein each of the broadband slot antennas includes:

a dielectric layer under which a microstrip feedline is  
25 formed;

a ground formed on the dielectric layer and  
electromagnetically coupled with the microstrip antenna

through a slot; and

a reflection plane placed under the microstrip feedline in order to prevent board surface waves from being radiated and enhance antenna gain,

5        wherein a baffle layer is formed on the ground conductor in order to prevent mutual coupling between the slot antennas and enhance antenna gain.

10        5. The slot array antenna as recited in claim 4, wherein the baffle layer reduces the mutual coupling between the slot antennas while arranging the broadband slot antennas and enhances antenna gain.